

Update by the Vermont Department of Public Service on the Vermont Yankee Decommissioning

Prepared for the
Vermont Nuclear Decommissioning Citizens Advisory Panel
January 13, 2020

Department's Ongoing Role

▶ Financial

- ▶ Review financial performance of project, including cash flow
- ▶ Analyze the financial health of NorthStar and affiliates
- ▶ Assess the viability of MOU financial assurances
- ▶ When applicable, monitor use of financial assurances

▶ Technical

- ▶ Confirm work performed is reasonable and consistent with NDT withdrawals
- ▶ Evaluate project to identify risks or concerns that could challenge successful completion
 - ▶ E.g., Delays, Additional scope, Flawed assumptions, Site Management Issues

Department's 2019 Activities

- ▶ The Department selected its consultant, Four Points Group, from a pool of 12 qualified RFP respondents.
- ▶ The Department worked with NorthStar regarding substance of annual reports due by March 31st, and its monthly reports.
- ▶ On March 29th, NorthStar made its annual reports pursuant to MOU § 2.h. & 2.i., which the Department reviewed.
- ▶ The Department has reviewed the monthly summaries of expenditures.
- ▶ The Department reviewed requests for disbursement from the Site Restoration Trust (SRT), the first of which was submitted in May 2019.
- ▶ The Department and its consultants met with NorthStar twice (in July and December) to further synchronize and develop the reporting.
- ▶ The Department's technical consultant conducted regular site visits.
- ▶ The Department created a dedicated Vermont Yankee Decommissioning landing page on its website (<https://publicservice.vermont.gov/content/vermont-yankee-decommissioning>), which includes additional financial information.

Updates Since Last Meeting

- ▶ Site Visit by technical consultant on December 12th
- ▶ On December 12th, 2019, the Department sent the NDCAP panelists a letter responding to questions posed by Representative Laura Sibilia
 - ▶ The letter is available on the Department's website and will be discussed later
- ▶ The Department exercised its right to inspect books and expenditures, pursuant to MOU § 2.f., which resulted in an on site meeting with NorthStar on December 19th

Major Activities on Site

- ▶ Site characterization
- ▶ Site preparation (removal of non-critical structures)
- ▶ Turbine demolition is nearly complete, and turbine work-related waste materials are being shipped off site
- ▶ Reactor Vessel Internals segmentation:
 - ▶ Setting up for underwater cutting of reactor internals using robotic abrasive jet
 - ▶ Core Shroud Head segmentation preparation underway
- ▶ Asbestos remediation: Loading out of asbestos containing materials

Financial Update: Trust Balances

	NDT	SRT
April 30, 2019	\$479,011,647.58	\$61,310,669.11
May 31, 2019	\$479,312,223.33	\$62,575,217.87
June 30, 2019	\$478,561,195.20	\$62,974,087.92
July 31, 2019	\$471,198,083.31	\$62,484,511.97
August 31, 2019	\$469,800,355.21	\$63,752,496.68
September 30, 2019	\$456,301,594.98	\$63,336,393.25
October 31, 2019	\$446,335,534.98	\$63,055,276.64
November 30, 2019	\$435,718,421.92	\$62,608,571.41
December 31, 2019	\$428,299,041.66	\$62,340,236.73

Disbursements from NDT

- ▶ 30-day “Pre-Notice of Disbursement from Decommissioning Trust” sent to the Nuclear Regulatory Commission (“NRC”):

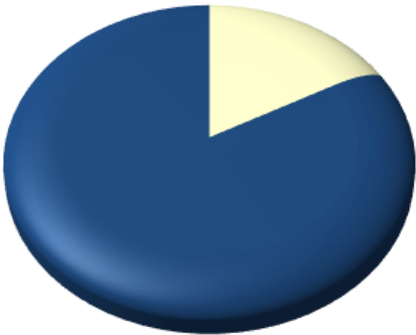
Date of Notice	Amount Requested
February 7, 2019	\$9,000,000.00
March 7, 2019	\$7,500,000.00
April 4, 2019	\$5,500,000.00
May 9, 2019	\$4,500,000.00
June 6, 2019	\$7,000,000.00
July 2, 2019	\$8,000,000.00
August 1, 2019	\$12,500,000.00
September 9, 2019	\$11,500,000.00
October 8, 2019	\$10,500,000.00
November 7, 2019	\$8,100,000.00
December 5, 2019	\$10,500,000.00
December 19, 2019	\$8,500,000.00

Disbursements from SRT

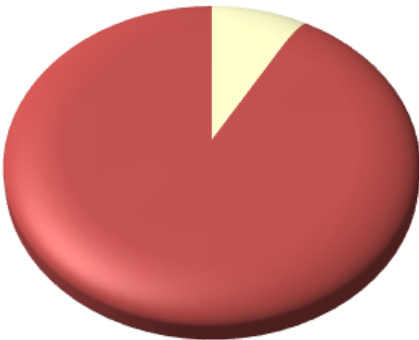
Date of Notice	Amount Requested
May 23, 2019	\$250,000.00
June 14, 2019	\$336,928.00
July 9, 2019	\$250,000.00
September 5, 2019	\$250,000.00
September 5, 2019	\$194,000.00
October 15, 2019	\$194,000.00
November 6, 2019	\$194,000.00
December 5, 2019	\$194,000.00
January 6, 2020	\$194,000.00

Financial Status of Project

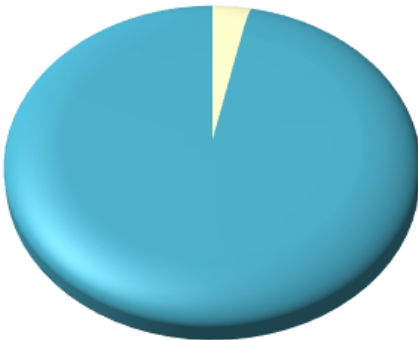
License Termination



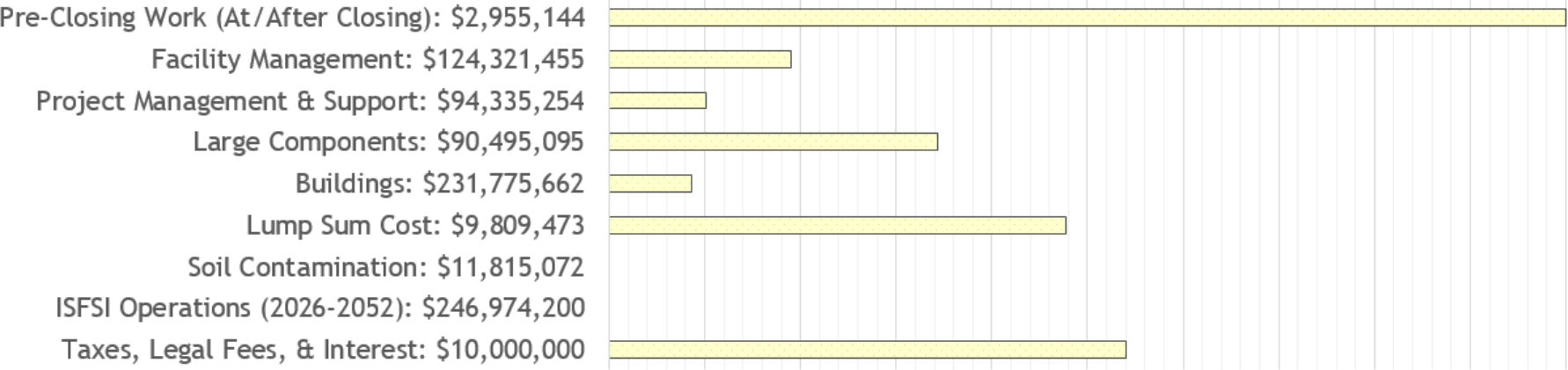
Site Restoration



Spent Fuel Management



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%



Department's Financial Review

- ▶ Each month, the Department receives from NorthStar a monthly summary of expenditures and a request for disbursement from the site restoration trust (“SRT”). The Department has a right to object to the requests for the SRT. SRT expenses cover non-radiological decontamination and removing non-radiological materials.
 - ▶ The Department has not yet objected to an SRT disbursement.
 - ▶ The Department also reviews the requests submitted to the NRC for disbursements from the NDT for radiological, license termination work. The Department does not have a right to object to these disbursements.
- ▶ The Department has a teleconference with NorthStar to discuss any questions.
- ▶ The Department conducts a site visit.
- ▶ The Department has phone calls and meeting with other State agencies.
- ▶ Ultimately the Department is assessing project progress relative to money disbursed.
- ▶ The review of the annual reports due by March 31 is more in depth, and will be covered at the May 4th NDCAP.

Recent Questions

- ▶ What is the estimated cost to complete the Vermont Yankee Decommissioning?
 - ▶ Is this estimate updated regularly?
 - ▶ Is there uncertainty built in?
- ▶ What is the estimated percentage of work complete?
- ▶ What happens if there is a surplus in the NDT/SRT?
- ▶ What happens if there are deficits in either fund?

Estimated Cost to Complete the Project

- ▶ The PUC's order approving the sale found the following estimated costs, totaling approximately \$811.5 million:
 - ▶ \$498,450,000 for radiological decommissioning and NRC license termination
 - ▶ \$25,272,000 for site restoration
 - ▶ \$287,802,000 for spent nuclear fuel management
- ▶ NorthStar intends to recover the above referenced costs (plus \$10 million of Taxes, Legal Fees, and Interest not delineated in the PUC's order) through the NDT and SRT (with anticipated growth) as well as through recoveries from the United States Department of Energy
 - ▶ Total anticipated funds are approximately \$882 million
- ▶ NorthStar provides updated estimates on an annual basis, to the NRC pursuant to federal regulation and to the State pursuant to the MOU (discussed later)

Is there Uncertainty Built In to the Estimated Costs?

- ▶ Yes. First, each line-item in the 900-line pay-item disbursement schedule has a 10% contingency built in (see page 20 of the PUC Order).
- ▶ Second, NorthStar will bear the expense if the actual cost of a line-item exceeds the amount allocated to that line-item (see page 20 of the PUC Order).
- ▶ Third, NorthStar must obtain performance bonds, or an equivalent, for any major subcontracted work with a value of approximately \$400 million, to provide protection if a contractor materially defaults or fails to complete contracted work as required.
- ▶ Fourth, there are a series of financial assurances that can be drawn upon if the funds in the NDT and SRT prove insufficient. These financial assurances add **approximately an additional 30% contingency** beyond what NorthStar estimated.

Financial Assurances

1. Proceeds under a \$30 million pollution legal liability insurance policy, if the need for funds is within the scope of coverage;
2. The \$140 million Support Agreement issued by NorthStar's corporate parent;
3. The \$30 million escrow account established by NorthStar;
4. \$10 million from expected litigation proceeds from NorthStar's claim against the Department of Energy ("DOE") for existing ISFSI operations activities;
5. \$40 million in additional proceeds from the DOE litigation, which are to be retained in escrow; and
6. The \$25 million guaranty provided by Orano USA LLC, which is performing decommissioning work related to the reactor vessel.

Estimated Percentage of Work Complete

- ▶ NorthStar currently estimates that the project is approximately 14.9% complete.
- ▶ The current schedule calls for completion at the end of January 2027, i.e., a 97 month project in total. As of December 2019, NorthStar has completed 12 months (12.5%). Meanwhile, as of December 2019, NorthStar calculated an earned value on (i.e., completion of) the project of \$127.1M out of \$852.1M, or 14.9%.
- ▶ The Department's consultants confirm that NorthStar's representations in their monthly report are reasonable, and review project records for inconsistencies.
- ▶ Based on this review, the Four Points Group finds this estimated percent complete to be reasonable and that NorthStar is on course to complete the project with available funding.

Surplus

- ▶ For the Nuclear Decommissioning Trust, **surplus funds would be distributed to the Vermont Yankee Nuclear Power Corporation (“VYNPC”) for the benefit of electric ratepayers.** The distribution would be based on the ownership percentages held by the eight utility sponsors of the VYNPC. **As a result, the Green Mountain Power Corporation would receive 55% of any surplus funds, to be used for the benefit of electric ratepayers.**
- ▶ For the Site Restoration Trust, any surplus funds would be returned to NorthStar as the successor-in-interest to Entergy, who was the sole source of funding for the SRT.

Insufficient Funds

- ▶ There are several sources of additional funding, including NorthStar bearing the expense of overruns and the use of the financial assurances.
- ▶ As the Vermont PUC acknowledged on page 41 of its order, the reactor could be returned to SAFSTOR mode: “In the worst case, it might be necessary to reassess plans, schedules, and budgets and explore, depending on circumstances, the possibility of a SAFSTOR option.”
 - ▶ This was the status quo under Entergy’s ownership, and would allow the remaining funds to grow.
- ▶ The NRC regulations obligate the licensee (NorthStar) to retain adequate funds to place and maintain the reactor in a safe storage condition, and to retain the ability to fund any shortfalls in the decommissioning trust to ensure the availability of funds to ultimately release the site and terminate the license.
- ▶ The NRC can also require the licensee to provide additional financial assurances based upon the annual financial assurance status report.

Annual Reports due March 31

Financial Assurance Status Report Due to the NRC

- ▶ The NRC requires NorthStar to file a “financial assurance status report” by March 31st of each year.
 - ▶ This report must include an “estimate of the costs to complete decommissioning, reflecting any difference between actual and estimated costs for work performed during the year, and the decommissioning criteria upon which the estimate is based.”
 - ▶ The contents are detailed in the regulation, 10 C.F.R. § 50.82(a)(8)(v).
- ▶ Additionally, if the balance of the decommissioning fund (plus expected earnings) and the financial assurances do not cover the estimated cost to complete the decommissioning, “the financial assurance status report must **include additional financial assurance** to cover the estimated cost of completion.”

Annual Reports due March 31

Annual public certification, MOU § 2.h.

- ▶ § 2.h.(1): A detailed description of all work completed as of that date pursuant to corrective action plans approved by ANR pursuant to Subchapter 5 of the I-Rule.
- ▶ § 2.h.(2): A detailed description and schedule of remaining corrective actions and site restoration work.
- ▶ § 2.h.(3): The amount of funds available for site restoration as of the end of the calendar year preceding the date of the report.
- ▶ § 2.h.(4): The amount of funds estimated to be required to complete site restoration.

Annual Reports due March 31

Financial Disclosures and Reports, MOU § 2.i.

- ▶ § 2.i.(1): **Audited financials** for NorthStar Group Holdings, LLC and NorthStar Group Services, Inc. for the preceding calendar year.
- ▶ § 2.i.(2): Audited statements of **NDT and SRT fund balances** (with current investment mix), and an accounting of all disbursements.
- ▶ § 2.i.(3): A schedule of both cumulative **historic . . . and projected fund activity for NDT and SRT funds**, . . . including an updated “**pay item disbursement schedule**” and . . . **an update of the current “Deal Model”** through completion of partial site release and site restoration of the VY Station site.
- ▶ § 2.i.(4): **A variance analysis**, comparing actual disbursements detailed in the updated “Deal Model” to estimated disbursements in the prior year’s reporting, explaining all variances in excess of 10% or \$2 million,